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Tobacco Use Among Pregnant Women in North Carolina: Predictors of Smoking Cessation During Pregnancy

**Results from the North Carolina Pregnancy Risk Assessment Monitoring System
(PRAMS), 1997-2001**

by

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ABSTRACT

Objectives: This study examines the differences in the rate of smoking cessation during pregnancy among mothers who smoked before pregnancy, by selected maternal characteristics. We also identify differences in maternal behaviors and birth outcomes between women who did and did not quit smoking during pregnancy, among women who smoked before pregnancy.

Methods: The sample for this study was obtained from the North Carolina Pregnancy Risk Assessment Monitoring System (PRAMS). This is a random sample of 7,935 live births for the period 1997-2001. For most analyses in this study, we exclude women who did not smoke before pregnancy (5,608) and those with data missing on smoking before or during pregnancy (255). Mothers who smoked before pregnancy and smoked at least one cigarette a day during the last three months of pregnancy are defined as persistent smokers, and those who smoked before pregnancy and did not smoke at least one cigarette a day during the last three months of pregnancy are defined as quitters in this study.

Results: Overall, 24.6 percent of women reported cigarette smoking before pregnancy, 13.8 percent during pregnancy, and 20.3 percent after pregnancy. Of those who smoked before pregnancy and quit during pregnancy, roughly half began smoking again by the time they completed the PRAMS survey at 3-6 months postpartum. After controlling for demographic and other characteristics, the strong predictors of smoking cessation during pregnancy were low intensity of smoking before pregnancy, higher maternal education, higher income, and no previous births. Mothers who did not quit smoking during pregnancy were significantly more likely to deliver a low birth weight baby and to have their infant exposed to second-hand smoke after giving birth and less likely to breastfeed.

Conclusions: While many women who smoke before becoming pregnant reduce the amount of cigarettes smoked during pregnancy, these women are having a difficult time completely quitting. Less than four percent of women who smoked before their pregnancy reported receiving classes on how to stop smoking during their pregnancy. More work is needed to educate women on the dangers of smoking during their pregnancy, particularly those in high-risk groups. Reducing the percentage of women who smoke during pregnancy is a National Healthy People 2010 objective and should remain a priority of North Carolina public health programs.



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